



# **IPA-48S/IPA-24S**

*User Manual*

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***Version 1.1***

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RECYCLABLE

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## WARNING INSTRUCTIONS

Before installing IPA-48S, the following the safety instructions must be complied.

1. All installation, repair or replacement procedures must be performed by qualified service personnel.
2. Before attempting to operate or repair this product, make sure the IPA-48S is properly grounded.
3. The maximum recommended operating temperature for the IPA-48S is 65°C. Care must be taken to allow sufficient air circulation.
4. The connections and equipment that supply power to the IPA-48S should be capable of operating safely within the maximum power requirements of the IPA-48S. If the input DC voltage is more than 10% lower than the standard the IPA-48S may malfunction. Make sure that the power supply is stable and the voltage is correct.
5. Do not allow anything to rest on the power cord, and do not locate the product where the power cord can be stepped on. Do not touch exposed connections, components or wiring when power is present.
6. To reduce the risk of fire or any other malfunction and damages to the IPA-48S, use the cables and power adapter provided in the package.
7. Following installation and the final configuration, the product must comply with the applicable safety standards and regulatory requirements of the country in which it is installed. If necessary, request technical support.
8. Do not operate this product with panels removed or with suspected failure or damage to electrical components.
9. IPA-48S is not water-proofed. Never place or install the product in a wet location unless specially designed waterproof protection is present.

iTAS will not be responsible for any damages or injuries to the IPA-48S, environment, or operating personnel if any of the safety instructions described above are violated or operating the device in the non-recommended conditions.

# 1 Introduction

Thank you for choosing the IPA-48S as your broadband access solution. This manual will help you with the setup and configuration of your product.

## 1.1 IPA-48S/IPA-24S Overview

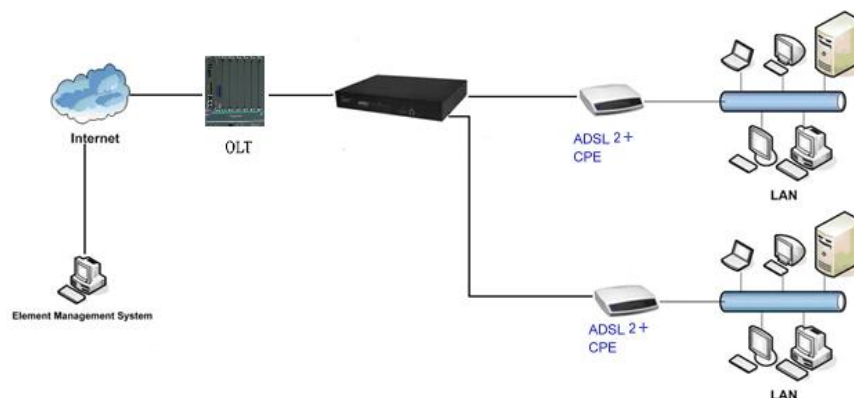
IPA-48S/24S ADSL2+ IP DSLAM is the up to date ADSL2/+ technology. The introduction of ADSL2+ has a major impact on how the original networks are engineered and how we access them. ADSL2+ is the latest and most advanced broadband technology for residential and business customers. IPA-48S/24S IP DSLAM promises to deliver downstream up to 25 Mbps and upstream up to 1Mbps traffic on short copper loops. IPA-48S/24S is designed to support the wide deployment of triple play features and offers the user many advanced services such as voice, high speed data, video on demand. Another benefit of IPA-48S/24S is to enable service providers to use their existing DSL infrastructure at their own pace and within reasonable cost.

## 1.2 Application

### Application1: MTU Active Fiber Application



### Application2: MTU PON Application



## 1.3 Specification

System Features	Protocol Support
<ul style="list-style-type: none"> <li>• DSL/POTS Ports <ul style="list-style-type: none"> <li>▶ 48-port or 24-port ADSL/2/2+ subscriber interface with built-in POTS Splitter</li> <li>▶ Centronic 50-pin connector for Telco line in and out</li> </ul> </li> <li>• Alarm Relay for 3 inputs and 1 output</li> <li>• Two Uplink Port SFP/GE Combos</li> <li>• Pluggable FAN Module</li> <li>• ATM Functionality <ul style="list-style-type: none"> <li>▶ RFC 1483/2684 multi-protocol encapsulation over ATM AAL5</li> <li>▶ LLC/VCMUX auto detection</li> <li>▶ VBR/GFR/UBR/ABR/CBR/VBR-nrt Policing</li> <li>▶ VBR/GFR/UBR+WFQ/UBR/GFR/VBR-nrt Shaping</li> </ul> </li> <li>• Bridging Port <ul style="list-style-type: none"> <li>▶ Tagged/Untagged/All Frame Filter</li> <li>▶ VLAN Ingress Filter</li> <li>▶ Static and Port-based VLAN</li> <li>▶ S-tag/C-tag Priority Mapping</li> <li>▶ Support for Transparent LAN Service (TLS)</li> </ul> </li> <li>• VLAN <ul style="list-style-type: none"> <li>▶ Single or Double tag support</li> <li>▶ N:1/1:1 VLAN</li> </ul> </li> <li>• Forwarding Database <ul style="list-style-type: none"> <li>▶ 16K MAC address entries</li> <li>▶ Dynamic/Static FDB</li> <li>▶ Forwarding N:1/1:1 VLAN</li> </ul> </li> <li>• Multicast <ul style="list-style-type: none"> <li>▶ Up to 256 multicast addresses</li> <li>▶ IGMP v1, v2, v3</li> <li>▶ Multicast VLAN mapping <ul style="list-style-type: none"> <li>○ Independent VLAN multicast (IVM).</li> <li>○ Shared VLAN Multicast (SVM)</li> </ul> </li> </ul> </li> <li>• Policer <ul style="list-style-type: none"> <li>▶ Broadcast/Unknown rate limit</li> <li>▶ 802.1P Priority rate limit</li> </ul> </li> <li>• Access Control List <ul style="list-style-type: none"> <li>▶ Filter on MAC, IP, Ether Type and port</li> </ul> </li> <li>• Packet size 64 byte to 1522 byte</li> </ul>	<ul style="list-style-type: none"> <li>• IGMPv1, v2, v3 snooping and proxy</li> <li>• PPPoE Intermediate Agent</li> <li>• DHCP L2 Relay – TR101 Appendix B</li> <li>• IEEE 802.1x</li> <li>• STP (802.1D) / RSTP (802.1W)</li> <li>• SNTP Client</li> <li>• SysLog Client</li> </ul>
	ADSL/ADSL2/ADSL2+ Interface
	<ul style="list-style-type: none"> <li>• ADSL/ADSL2/ADSL2+: Downstream DMT data rate of 32 kb/s up to 25 Mbps; Upstream DMT data rate of 32 kb/s up to 1 Mbps</li> <li>• Complies with the ITU G.992.1 (G.DMT), G.DMT.bis, ITU G.992.2 (G.Lite), ANSI T1.413 issue 2, ITU G.994.1 (G.handshake) for ADSL, G.992.3 for ADSL2, and G.992.5 for ADSL2+ standards</li> <li>• Extended power management capabilities to optimize power consumption for each application</li> <li>• Distance up to 18 kft</li> </ul>
	Management
	<ul style="list-style-type: none"> <li>• Local RS-232 CLI and Ethernet Web/SNMP/TELNET management</li> <li>• Remote in-band Web/SNMP/TELNET management</li> <li>• Firmware upgradeable via HTTP, FTP or TFTP</li> <li>• Support for SNMP v1, v2, v3</li> </ul>
	Operating Requirements
	<ul style="list-style-type: none"> <li>• Operating Temperature: -20 to 65°C</li> <li>• Storage Temperature: -30 to 70°C</li> <li>• Operating Humidity: 5 to 90% RH non-condensing</li> </ul>
	Dimensions and Weight
	<ul style="list-style-type: none"> <li>• Dimensions: 260 mm (d) x 440 mm (w) x 44mm (h)</li> <li>• Weight: 6kg</li> </ul>
	Power
	<ul style="list-style-type: none"> <li>• AC power model: 90 VAC ~ 240 VAC, 50-60 Hz</li> <li>• DC power model: -36 VDC ~ -72 VDC</li> <li>• Power Consumption: 70 Watts</li> </ul>
	Certifications
	<ul style="list-style-type: none"> <li>• EMC <ul style="list-style-type: none"> <li>▶ FCC Part 15 Class A</li> <li>▶ CE-EMC Class A</li> </ul> </li> <li>• Safety <ul style="list-style-type: none"> <li>▶ EN60950-1</li> <li>▶ ITU-T K.20</li> </ul> </li> </ul>

## 2 Hardware Setup and Startup

### 2.1 Description of Hardware



#### 2.1.1. Power Outlet

AC: 90 ~ 240VAC, 50/60Hz; 70Watts (Max.)

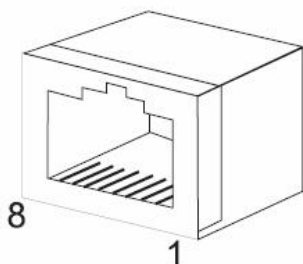
DC: -36 ~ -72 VDC; 70Watts (Max.)

#### 2.1.2. Optical Ethernet Port (UP1 and UP2) – SFP Cage

- Two 1000BASE-X (SX, LX, LHX, ZX ) ports
- Two uplink ports or
- One port is for uplink and another one for downlink (stacking port)

#### 2.1.3. Electrical Ethernet Port (UP1 and UP2) – RJ45

- Two automatic MDI/MDI-X 1000/100/10 BASE T Ports
- Two uplink ports or
- One port is for uplink and another one for downlink (stacking port)



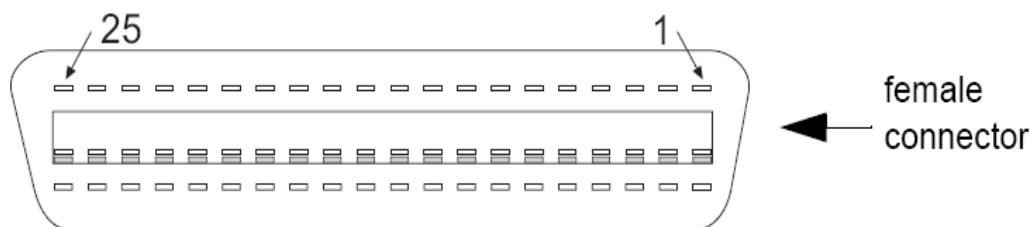
Pin	Signal Name
1	Transmit Data plus (TD1+)
2	Receive Data minus (RD1-)
3	Transmit Data plus (TD2+)
4	Transmit Data plus (TD3+)
5	Receive Data minus (RD3-)
6	Receive Data minus (RD2-)
7	Transmit Data plus (TD4+)
8	Receive Data minus (RD4-)

#### 2.1.4. System LED



System Status LEDs		
LED	Condition	Status
PWR	On Green	Power is properly supplied
SYS	On Green	System initialization is properly completed
ALM	On Red	System alarm is active
TST	On Amber	System test in progress

## 2.1.5. LINE ports and PSTN ports



Line Port Pin Assignment

PIN #	Usage	PIN#	Usage
1	DSL/PSTN 1-T	26	DSL/PSTN 1-R
2	DSL/PSTN 2-T	27	DSL/PSTN 2-R
3	DSL/PSTN 3-T	28	DSL/PSTN 3-R
4	DSL/PSTN 4-T	29	DSL/PSTN 4-R
5	DSL/PSTN 5-T	30	DSL/PSTN 5-R
6	DSL/PSTN 6-T	31	DSL/PSTN 6-R
7	DSL/PSTN 7-T	32	DSL/PSTN 7-R
8	DSL/PSTN 8-T	33	DSL/PSTN 8-R
9	DSL/PSTN 9-T	34	DSL/PSTN 9-R
10	DSL/PSTN 10-T	35	DSL/PSTN 10-R
11	DSL/PSTN 11-T	36	DSL/PSTN 11-R
12	DSL/PSTN 12-T	37	DSL/PSTN 12-R
13	DSL/PSTN 13-T	38	DSL/PSTN 13-R
14	DSL/PSTN 14-T	39	DSL/PSTN 14-R
15	DSL/PSTN 15-T	40	DSL/PSTN 15-R
16	DSL/PSTN 16-T	41	DSL/PSTN 16-R
17	DSL/PSTN 17-T	42	DSL/PSTN 17-R
18	DSL/PSTN 18-T	43	DSL/PSTN 18-R
19	DSL/PSTN 19-T	44	DSL/PSTN 19-R
20	DSL/PSTN 20-T	45	DSL/PSTN 20-R
21	DSL/PSTN 21-T	46	DSL/PSTN 21-R
22	DSL/PSTN 22-T	47	DSL/PSTN 22-R
23	DSL/PSTN 23-T	48	DSL/PSTN 23-R
24	DSL/PSTN 24-T	49	DSL/PSTN 24-R
25	NOT USED	50	NOT USED

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## **2.2 Accessory Parts check**

Check the following items in your package. Contact our sales representatives if any item is missing or damaged.

IPA-48S x 1

RJ-45 cable x 1

RS232 cable x 1

Power Cable x 1

Mounting hardware pkg x 1



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### 3 EmWeb Setup and Startup

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1. To access EmWeb on the IPA-48S, one has to connect uplink port and enter URL below at web browser.

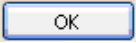
Uplink #1 (UP1): <http://192.168.100.111>

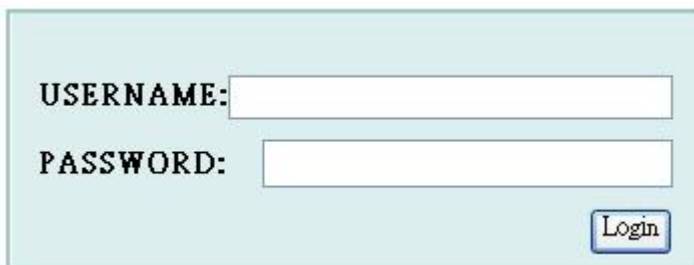
Uplink #2 (UP2): <http://192.168.1.111>

2. If you first time login the EmWeb, the default User name/Password as follows

User Name: [admin](#)

Password: [admin](#)

3. Click on . You are now ready to configure IPA-48S IP DSLAM using EmWeb.

A screenshot of the EmWeb login interface. It features a light blue background with a white rectangular area containing the login fields. The label 'USERNAME:' is followed by a white text input box. Below it, the label 'PASSWORD:' is followed by another white text input box. To the right of the password box is a blue button with the word 'Login' in white text.

EmWeb provides a series of web pages that you can use to setup and configure the IPA-48S IP DSLAM. These pages are organized into four main topics. You can select each of the following topics from the menu on the left-hand side of the main window:

- System: The System section lets you carry out system commands like Firmware Update, System Reboot, Save Config, and Recall Config.
- Configuration: information about the current configuration of various system features with options to change the configuration.
- Advanced: information about the current configuration of various system features with options to change the configuration.
- Status: Information about the current setup and status of the system.
- Maintenance: show the statistics of the interface.

The changes made via web pages will immediately reflect in all elements of the network.

The exact information displayed on each web page depends on the specific configuration that you are using. The following sections give you a general overview of the setup and configuration details.

## 3.1 System

Click on System menu, the following options appear:

### System

- System Information
- System Reboot
- Save Config
- Backup&Restore Config
- Firmware Update
- Management Users
- System Log
- Image List/Selection

The System menu contains options including, System Information, System Reboot, Save Config, Backup&Restore Config., Firmware Update, Management Users, System Log and Image List/Selection. They will be introduced in the following sections.

### 3.1.1 System Information

This page simply shows the basic information of the device. User will be able to enter the desired information for the device and click on “Apply” to save the settings.

System Info	
<b>Description:</b>	<input type="text" value="ADSL2+ IPDSLAM"/>
<b>Name:</b>	<input type="text"/>
<b>Location:</b>	<input type="text"/>
<b>Contact:</b>	<input type="text"/>
<b>Log Threshold:</b>	<input type="text" value="0"/>
<b>Object-ID:</b>	1.3.6.1.4.1.30544
<b>Up Time(HH:MM:SS):</b>	0:17:2
<b>S/W Version:</b>	1.1.401.5 [ API:GS_CMX_445 FW:3.24_138 ]
<b>DP Version:</b>	Default Config
<b>System Time: (mon dd hh:mm:ss year)</b>	WDDI 3.4
	<input type="text" value="Sat"/> <input type="text" value="Jan"/> <input type="text" value="01"/> <input type="text" value="00"/> : <input type="text" value="17"/> : <input type="text" value="01"/> <input type="text" value="2000"/>
	<input type="button" value="Set SNTP"/>
<b>Time Zone:</b>	<input type="text" value="GMT-0000 GMT"/> ▼
<b>DST:</b>	<input type="text" value="off"/> ▼
	<input type="button" value="Apply"/>

Field	Description
Description:	Description of the device
Name:	Name of the device. User can give a name for easy mgt.
Location:	Location of the device
Contact:	Contact personnel or information
Log Threshold:	Number of log events

Object-ID:	ID of the object
Up Time:	Time elapses after the devices switched on.
S/W Version:	Software version information
System Time:	Time of the device
Time Zone:	Setting the time to the desired time zone
DST:	Daylight Saving Time

### 3.1.2 System Reboot

Click System Reboot under the System Menu to display the page below. User will be able to decide which configurations to reboot from based on the dropdown list.



Upon click the “Reboot” button, a warning window will be popped up confirming the action.



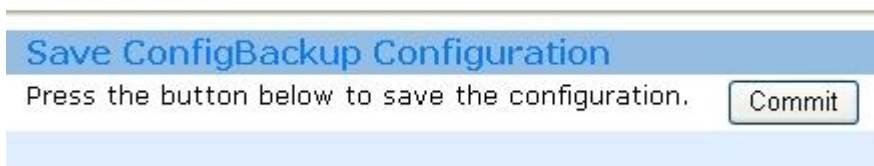
When “Yes” button has been pressed, It will take the system about 30 seconds to reboot.

### 3.1.3 Save Config

To store current configuration at non-volatile Flash memory:

1. From the System menu, click on *Save config*. The following page is displayed:

Save Config



2. Click on “Commit” to save your current configuration in the device.

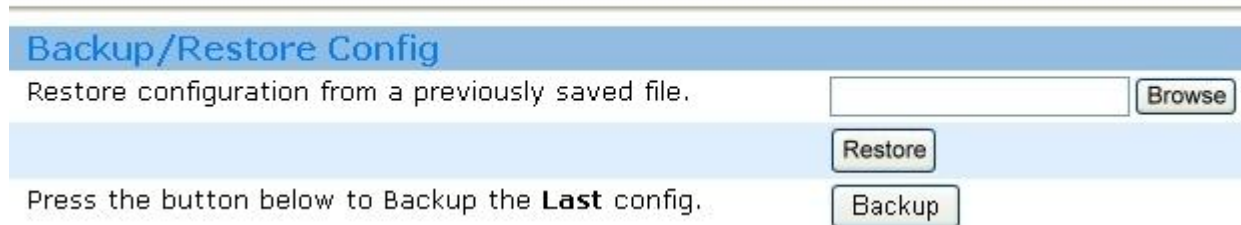
After a short time the configuration is saved and the following confirmation message window is displayed.



### 3.1.4 Backup&Restore Config

In the *Backup&Restore Config* page as shown below, user will be able to restore or backup the configuration.

#### Backup/Restore Config Setting



Click on the “Browse” button to choose the configuration file desired and click “Restore” to apply the changes.

As for saving the current configuration settings, simply click on the “Backup” button to save the configurations.

### 3.1.5 Firmware Update

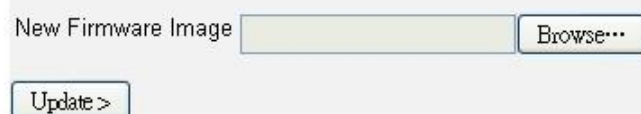
This option allows firmware images to be uploaded to the IPA-48S using HTTP.

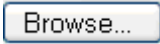

1. From the System menu, click *Firmware update*. The following page will be displayed:

## Firmware Update

From this page you may update the system software on your network device

### Select Update File



2. Enter the location of the new firmware image that is to be uploaded, or use the  button to browse and select the file. Click .

3. The image file is uploaded to the RAM first and then moved to the flash non-volatile memory. A status page will be displayed confirming whether the upload is complete or indicating how many of the file (in bytes and as a percentage) has been written to the flash memory.



4. Once the file has been written to flash, the Firmware Update page is refreshed. The page confirms completion of the update and requests that the IPA-48S be restarted in order to run the new image file. Click Restart in the system menu.

**Note:** Please do not power-off the device while updating firmware or saving the configuration as this

might cause the device to malfunction.

5. After updating the firmware, it is strongly suggested that the device is restarted and the default configuration is recalled as this will prevent any incompatible configuration between the former and the current firmware versions. To do this, check the *Reset to factory default settings* box on the *Restart* page in the system menu.

### 3.1.6 Management Users

This page allows the user to delete, modify and create user accounts for managing the IPA-48S. Click “Management Users” under System menu to display the following pages.

account list			
	User Name	Login Password	Privilege Level
<input type="radio"/>	"admin"	"admin"	Root
	<div>Delete</div>	<div>Modify</div>	<div>Create</div>

To delete an account  
Simply select the specific account and click the “Delete” button to delete.  
**Notice:** Delect default user is not allowed.

To modify an account  
Select the specific account and click the “Modify” button to display the modification page. Edit the desired field and click “Apply” to save the settings.

Setting login account

User Name	"admin"
Login Password	<input type="text" value="admin"/>
Privilege Level	Root

To create an account  
Click the “Create” button to display the creation page. Enter the desired data into the specified fields and click “Apply” to create the account.

Setting login account

User Name	<input type="text"/>
Login Password	<input type="text"/>
Privilege Level	Root <input type="button" value="v"/>

### 3.1.7 System Log

#### 1. System Log Config

This page allows the user to create or delete syslog send server. Click “Syslog Sender Config” under System Log of the System menu to display the following image.

Use the dropdown box next to enable or disable the sender.

**Note:** In order to make Syslog Sender Enable to be effective, user need to set the Log Threshold under the System Info to be a non-zero value.

User can also create or delete the Collector List by clicking the “Delete” or “Create” buttons to display the following image.

## 2. Syslog Log

This page lists the entire system event log. User will be able to check the event history under this section. User can click “Reload” to refresh the page for updated events or click “Reset” to clear the past events. To display the following page, simply click Syslog Log of the System Log under the System menu.

System Log		
Date	Type	Describe
Sat Jan 01 00:02:06 2000	MAJOR ALARM	XDSL XTUC Down : Interface - dsl-1
Sat Jan 01 00:02:40 2000	STATUS ALARM	XDSL XTUC Up : Interface - dsl-1
<input type="button" value="Reset"/> <input type="button" value="Reload"/>		

### 3.1.8 Image List/Selection

This page allows the user to display repository image version and to change repository. User can simply to check Select option next to the desired image version and click “Apply” to change the image version. Click on the Image List under System menu to display the following page.

	Image Version	MD5-CheckSum	Current Repository	Select
Repository#1	ipa-48-1.1.401.5.tgz	N/A	✓	<input checked="" type="radio"/>
Repository#2	ipa-48-1.1.401.5.tgz	N/A		<input type="radio"/>

## 3.2 Configuration

### Configuration

Ethernet  
Bridge Features  
DSL  
VLAN  
QoS  
Protocol Based VLAN

### 3.2.1 Ethernet

This page allows the user to modify the specific Ethernet Interfaces. Click the “Interface Setup” of the Ethernet under Configuration menu to display the page.

Interface Configuration											
	Interface	Media	MAC address	IP address	Subnet Mask	Gateway	Speed	Duplex	Management Svid	Management CVid	Flow Control
<input checked="" type="radio"/>	Mgmt	Copper	00 1C CB 50 2D CD	192.168.200.111	255.255.255.0	192.168.200.254	Auto	Auto	-	-	-
<input type="radio"/>	Eth1	Auto	00 1C CB 50 2D CB	192.168.100.111	255.255.255.0	192.168.100.254	Auto	Auto	-	-	Disable
<input type="radio"/>	Eth2	Auto	00 1C CB 50 2D CC	192.168.1.111	255.255.255.0	192.168.1.254	Auto	Auto	-	-	Disable

[Modify](#)

Simply select the desired Interface and click “Modify” to enter the modification page. Fill in the desired data for the corresponding fields and click “Apply” to save the changes.

Ethernet Interface Setup	
Parameter	Present Modify
Interface	Mgmt
Media	-
MAC address	00 1C CB 50 2D CD
IP address	192.168.200.111
Subnet Mask	255.255.255.0
Default Gateway	192.168.200.254
Speed	Auto
Duplex	Auto
Management SVID	-
Management CVid	-

[Back](#) [Undo](#) [Apply](#)

### 3.2.2 Bridge

#### Bridge Features

- Bridge Configuration
- XVID
- ACL MAC Filter

### 3.2.2.1 Bridge Configuration

This page allows the user to modify the Bridge information for the each DSL port. Simply select the desired DSL port and click “Modify” to enter the modification page.

Display all general port information										
Ethernet Stag TPID:		<div>0x8100</div>								
Port ID	Admin State	Type	Accept Frame	Max MACs	Used MACs	Default SVID	Default CVID	Default Priority	Priority Mode	
<input checked="" type="radio"/> DSL-1	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-2	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-3	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-4	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-5	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-6	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-7	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-8	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-9	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-10	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-11	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-12	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-13	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-14	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-15	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-16	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-17	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-18	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-19	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-20	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-21	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-22	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-23	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> DSL-24	up	User	All	40	0	1	0	0	Untagged	
<input type="radio"/> ETH-01	up	Uplink	All	4000	0	1	0	0	Untagged	
<input type="radio"/> ETH-02	up	Uplink	All	4000	0	1	0	0	Untagged	
										<div>Modify</div>

Once the modification page displayed, enter the desired information to the corresponding fields and click “Modify” to save the settings.



**Modify Bridge Setup**

**Port ID**

**Admin Status:**

**Port Type:**

**Accept Frame Type:**

**Default CVID:**

**Default SVID:**

**Default Priority:**

**Default Priority Mode:**

**Learning Mode:**

DSL-1 v

☐ Down ☒ Up

User v

☒ All ☐ Tagged ☐ Untagged

0

1

0

☒ Untagged ☐ All

☒ Enable ☐ Disable

Modify

Here need to add more information for above figure.

Field	Description
<b>Port ID</b>	The bridge port ID. Valid values: 1...26 (1...24: DSL, 25...26: eth)
<b>Admin Status</b>	Show the port disable and enable status
<b>Port Type</b>	
<b>Accept Frame type</b>	All: forward tagged/untagged packet by default Tagged: Forward Tagged packet Untagged: Forward Untagged packet
<b>Default CVID</b>	Customer VLAN ID, which is used to be the default Customer VLAN ID. Valid values: 1...4093
<b>Default SVID</b>	Service VLAN ID, which is used to be the default Service VLAN ID. Valid values: 1...4093
<b>Default Priority</b>	Set 802.1p value for the port, valid value: 0-7
<b>Default Priority Mode</b>	Untagged :mean no 802.1p priority tag traffic All: forward any 802.1p priority tag traffic
<b>Learning Mode</b>	The state of learning on this bridge port, which is used to learn VLAN ID. Valid values: disable / enable

### 3.2.2.2 XVID

This page displays the list of all CVIDs for any specific ports. You can transfer the CVID to predefined SVID/CVID. Click CVID under the Configuration menu and display the page below.

**Get a list of all XVID rules of the port**

**Bridge Port ID**

**Ingress CVID**

DSL-1 v

1

**Egress SVID**

**Egress CVID**

☒ 1

1

N/A

Delete
Modify

Click on “Modify” button to display the modification page as below, where user will be able to modify

CVID member list translation rule of any specific ports. Simply use the dropdown list to choose the desired option and click “Apply” to save the settings.

**Modify CVID**

Port ID	1
Ingress CVID	1
Egress SVID	1
Egress CVID	N/A

Back

Undo

Apply

### 3.2.2.3 ALC MAC Filter

Click on filter Table config and add the VLAN ID and MAC filter mapping table at first.

Create Filter Table

**Create Filter Table**

MAC Filter Index 1

ID:

VID

MAC ADDRESS LIST

MAC ADDRESS

1

New

00:00:00:00:00:01

delete

00 : 00 : 00 : 00 : 00 : 01

add

After the VLAN ID and MAC filter entry setup, and then bind the port ID to filter MAC address related to VALN ID or untagged traffic.

**Create Bridge Setup**

Port ID

MAC Filter ID

Filter-Type

DSL-1

1

src-deny

Back

Undo

Apply

### 3.2.3 DSL Profile Configuration

#### DSL

##### Profile

- Line Profile
- Line Profile Extension
- Line Alarm Profile
- Channel Profile
- Channel Alarm Profile

##### Port Setup

##### PVC Management

### 3.2.3.1 Profile

#### 3.2.3.1.1 Line Profile

This page displays the Line profiles and allows the user to manage the DSL line profiles. Click “Line Profile” under DSL Profile Config of the Configuration menu to display the following page.

Line Profile List							
	Profile Name	DS Max SNR Margin(dB)	DS Min SNR Margin(dB)	US Max SNR Margin(dB)	US Min SNR Margin(dB)	DS Target SNR Margin(dB)	US Target SNR Margin(dB)
<input checked="" type="radio"/>	default	31.0	3.0	31.0	3.0	6.0	6.0
<div><div>Delete</div><div>Modify</div><div>Create</div></div>							

For the creation or modification, simply enter the desired values to the corresponding fields and click “Apply” to save the changes.

Create xDSL Line Profile	
Profile Name	<input type="text"/>
Transmission Modulation Mode	<input checked="" type="checkbox"/> ANSI T.1413 <input checked="" type="checkbox"/> G.DMT <input checked="" type="checkbox"/> ADSL2 <input type="checkbox"/> ADSL2 AnnexM <input checked="" type="checkbox"/> ADSL2+ <input type="checkbox"/> ADSL2+ AnnexM
Force Impulse Noise Protection	<input type="text" value="Enable"/>
DownStream PM L2 Exit Threshold Data Rate	<input type="text" value="64000000"/> (128000..64000000 seconds)
Power Management Mode (ADSL)	<input type="radio"/> Forbid_To_L2_and_L3 <input type="radio"/> Allow_To_L3_only <input checked="" type="radio"/> Allow_To_L2_only <input type="radio"/> Allow_L2_and_L3
L0 Time(ADSL)	<input type="text" value="255"/> (0..1800 seconds)
L2 Time(ADSL)	<input type="text" value="255"/> (0..1800 seconds)
Max Aggregate Tx Power Reduction(ADSL)	<input type="text" value="10"/> (0..31 seconds)
DownStream PM L2 Min Rate(ADSL)	<input type="text" value="1500000"/> (1000000..4300000 bps)
PM L2 Entry Threshold Data Rate(ADSL)	<input type="text" value="0"/> (0..300000000 bps)

<b>PM L2 Entry Rate MinTime (ADSL)</b>		<input type="text" value="10"/>	(10..1114 seconds)
		<b>Down Stream</b>	<b>Up Stream</b>
<b>Rate Mode</b>	<input type="text" value="AtInit"/>	<input type="text" value="AtInit"/>	
<b>Min Noise Margin</b>	<input type="text" value="30"/>	(0..310 dB/10)	<input type="text" value="30"/>
			(0..310 dB/10)
<b>Max Noise Margin</b>	<input type="text" value="310"/>	(0..310 dB/10)	<input type="text" value="310"/>
			(0..310 dB/10)
<b>Target SNR Margin</b>	<input type="text" value="60"/>	(0..310 dB/10)	<input type="text" value="60"/>
			(0..310 dB/10)
<b>Up-Shift Noise Margin</b>	<input type="text" value="90"/>	(0..310 dB/10)	<input type="text" value="10"/>
			(0..310 dB/10)
<b>Down-Shift Noise Margin</b>	<input type="text" value="30"/>	(0..310 dB/10)	<input type="text" value="10"/>
			(0..310 dB/10)
<b>Up-Shift Time Interval</b>	<input type="text" value="30"/>	(0..16383 seconds)	<input type="text" value="3600"/>
			(0..16383 seconds)
<b>Down-Shift Time Interval</b>	<input type="text" value="30"/>	(0..16383 seconds)	<input type="text" value="30"/>
			(0..16383 seconds)
<b>Bit-Swap</b>	<input type="text" value="Enable"/>		<input type="text" value="Enable"/>
<input type="button" value="Back"/> <input type="button" value="Undo"/> <input type="button" value="Apply"/>			

### 3.2.3.1.2 Line Profile Extension

This page displays current line profile extension information. Click “Line Profile Extension” under DSL of the Configuration menu to display the following page for line profile extension management.

Line profile Extension List						
Profile Name	DownStream Max nominal transmit PSD (dBm/Hz)	UpStream Max nominal transmit PSD (dBm/Hz)	Downstream Min Overhead Rate(bps)	Upstream Min Overhead Rate(bps)	USO Boundary Tone	Band Plan
<input checked="" type="radio"/> default	-40.0	-38.0	16000	8000	N/A	BandPlan997

For the creation or modification, simply enter the desired values to the corresponding fields and click “Apply” to save the changes.

xDSL mode	ADSL2PLUS	
Downstream Max Nominal tx PSD	-400	(-950..0 dBm/Hz)
Upstream Max Nominal Aggregate tx Power	-380	(-950..0 dBm/Hz)
Downstream Max Nominal Aggregate tx Power	198	(0..255 <0.1 dBm>)
Upstream Max Nominal Aggregate tx Power	125	(0..255 <0.1 dBm>)
Upstream Max Aggregate Rx Power	0	(-255..255)
Upstream PSD Mask Select	DMT_STANDARD	
Downstream PSD Mask Select	DMT_PSD_ADSL2_NONOVLP1	
Upstream Min Overhead Rate	8000	(4000..248000 bps)
Downstream Min Overhead Rate	16000	(4000..248000 bps)
Downstream Trellis Coding	Enable	
Upstream Trellis Coding	Enable	
Downstream Max Rx Number of bits per Bin	15	(0..65535)
Downstream PSD Mask Feature	psdDisable	
Upstream PSD Mask Feature	psdDisable	
Downstream RFI Bands Feature	Disable	
RFI Windowing Feature	Disable	
Downstream Max tx PSD on Annex M(ADSL)	AnnexM_EU60	
US0 Boundary Tone(VDSL)	D-32	
DPBO Exchange Psd Mask	<input checked="" type="radio"/> Default <input type="radio"/> Custom	
DPBO Electrical Loop Length(xDSL)	0	(0..511 <0.5 dB>)
DPBO Scalar A(ADSL)	263	(0..640)
DPBO Scalar B(ADSL)	509	(0..640)
DPBO Scalar C(ADSL)	261	(0..640)
Min Usable Receive Signal PSD(ADSL)	190	(0..255)
DPBO Span Min Frequency(ADSL)	32	(0..2048 <4.3125 kHz>)
DPBO Span Max Frequency(ADSL)	511	(32..6956 <4.3125 kHz>)

### 3.2.3.1.3 Line Alarm Profile

This page displays all profile information and allows the user to manage DSL line alarm profiles.

Line Alarm Profile List						
	Profile Name	XTU-C Thresh Rate Up	XTU-R Thresh Rate Up	XTU-C Thresh Rate Down	XTU-R Thresh Rate Down	XTU-C/R CountersReset
g	default	1	1	1	1	0

Delete

Modify

Create

For the creation or modification, simply enter the desired values to the corresponding fields and click “Apply” to save the changes.

PM State Trap	Disable	
Xtuc Rate Up Change Threshold	1	(0..1 bps)
Xtur Rate Up Change Threshold	1	(0..1 bps)
Xtuc Rate Down Threshold	1	(0..1 bps)
Xtur Rate Down Threshold	1	(0..1 bps)
Xtuc Current 15Min Fecs Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min Fecs Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min ESs Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min ESs Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min SES Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min SES Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOSS Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min LOSS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min UAS Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min UAS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOFS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOFS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOLS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LPRS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LPRS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOSS Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min LOSS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOFS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOFS Threshold	0	(0..4294967295 seconds)
Xtuc Current 15Min LOLS Threshold	0	(0..4294967295 seconds)
Xtur Current 15Min LOLS Threshold	0	(0..4294967295 seconds)

### 3.2.3.1.4 Channel Profile

Click “Channel Profile” under DSL of the Configuration menu to display the following page and allow user to manage them.

Channel Profile List									
	Profile Name	DownStream Min Data Rate(bps)	UpStream Min Data Rate(bps)	DownStream Max Data Rate(bps)	UpStream Max Data Rate(bps)	DownStream Max Interleave Delay(ms)	UpStream Max Interleave Delay(ms)	DownStream Min INP	UpStream Min INP
	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection

For the creation or modification, simply enter the desired values to the corresponding fields and click “Apply” to save the changes.

Create xDSL Channel Profile		
Profile Name	<input type="text"/>	
Channel Number	0	
DownStream Min Net Data Rate	32000	(0..100000000 bps)
UpStream Min Net Data Rate	32000	(0..50000000 bps)
DownStream Max Net Data Rate	64000000	(0..100000000 bps)
UpStream Max Net Data Rate	36000000	(0..50000000 bps)
DownStream Max Interleave Delay	1	(1..63 ms)
UpStream Max Interleave Delay	1	(1..63 ms)
DownStream Min INP	NoProtection	
UpStream Min INP	NoProtection	

### 3.2.3.1.5 Channel Alarm Profile

This page displays all Channel profiles and allows the user to set the values for the Channel Profile. Click “Channel Alarm Profile” under DSL of the Configuration menu to display the following page. To modify any specific Channel Profile, simply select the corresponding option button and click “Modify” to display. User can also delete any specific Channel Profile by clicking the “Delete” button instead of “Modify”

Channel Alarm Profile List									
Profile Name	XTU-C 15Min Corrected Blocks Threshold	XTU-R 15Min Corrected Blocks Threshold	XTU-C 15Min Uncorrected Blocks Threshold	XTU-R 15Min Uncorrected Blocks Threshold	XTU-C 1 Day Corrected Blocks Threshold	XTU-R 1 Day Corrected Blocks Threshold	XTU-C 1 Day Uncorrected Blocks Threshold	XTU-R 1 Day Uncorrected Blocks Threshold	
<input checked="" type="radio"/> default	0	0	0	0	0	0	0	0	

For the creation or modification, simply enter the desired values to the corresponding fields and click “Apply” to save the changes.

Profile Name	<input type="text"/>	
channelnum	0	
Xtuc Current 15min Corrected Blocks Threshold	0	(0..4294967295)
Xtur Current 15min Corrected Blocks Threshold	0	(0..4294967295)
Xtuc Current 15min Uncorrected Blocks Threshold	0	(0..4294967295)
Xtur Current 15min Uncorrected Blocks Threshold	0	(0..4294967295)
Xtuc Current 1day Corrected Blocks Threshold	0	(0..4294967295)
Xtur Current 1day Corrected Blocks Threshold	0	(0..4294967295)
Xtuc Current 1day Uncorrected Blocks Threshold	0	(0..4294967295)
Xtur Current 1day Uncorrected Blocks Threshold	0	(0..4294967295)





### 3.2.3.2.4 Line Alarm Profile

This page allows the user to display the profile mapping information as well as letting the user to apply other alarm profile to specified DSL port. To modify any specific Line Alarm Profile, simply select the corresponding option button and click “Apply” to change.

DSL No.	Profile Name	XTU-C Thresh Rate Up	XTU-R Thresh Rate Up	XTU-C Thresh Rate Down	XTU-R Thresh Rate Down	XTU-C/R CountersReset
DSL-1	default	1	1	1	1	0
DSL-2	default	1	1	1	1	0
DSL-3	default	1	1	1	1	0
DSL-4	default	1	1	1	1	0
DSL-5	default	1	1	1	1	0
DSL-6	default	1	1	1	1	0
DSL-7	default	1	1	1	1	0
DSL-8	default	1	1	1	1	0
DSL-9	default	1	1	1	1	0
DSL-10	default	1	1	1	1	0

### 3.2.3.2.5 Channel Profile

This page allows the user to display the profile mapping information as well as letting the user to apply other channel profile to specified DSL port. Click “Channel Profile” under DSL of the Configuration menu to display the following page. To modify any specific Channel Profile, simply select the corresponding option button and click “Apply” to change.

Channel Profile Mapping Table									
DSL No.	Profile Name	DownStream Min Data Rate(bps)	UpStream Min Data Rate(bps)	DownStream Max Data Rate(bps)	UpStream Max Data Rate(bps)	DownStream Max Interleave Delay(ms)	UpStream Max Interleave Delay(ms)	DownStream Min INP	UpStream Min INP
DSL-1	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-2	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-3	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-4	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-5	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-6	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection
DSL-7	default	32000	32000	64000000	36000000	1	1	No Protection	No Protection

### 3.2.3.2.6 Channel Alarm Profile

This page allows the user to display the profile mapping information as well as letting the user to apply other channel alarm profile to specified DSL port. Click “Channel Alarm Profile” under DSL of the Configuration menu to display the following page. To modify any specific Channel Profile, simply select the corresponding option button and click “Apply” to change.

DSL No.	Profile Name	XTU-C 15Min Corrected Blocks Threshold	XTU-R 15Min Corrected Blocks Threshold	XTU-C 15Min Uncorrected Blocks Threshold	XTU-R 15Min Uncorrected Blocks Threshold	XTU-C 1 Day Corrected Blocks Threshold	XTU-R 1 Day Corrected Blocks Threshold	XTU-C 1 Day Uncorrected Blocks Threshold	XTU-R 1 Day Uncorrected Blocks Threshold
DSL-1	default	0	0	0	0	0	0	0	0
DSL-2	default	0	0	0	0	0	0	0	0
DSL-3	default	0	0	0	0	0	0	0	0
DSL-4	default	0	0	0	0	0	0	0	0
DSL-5	default	0	0	0	0	0	0	0	0
DSL-6	default	0	0	0	0	0	0	0	0
DSL-7	default	0	0	0	0	0	0	0	0

### 3.2.3.3 PVC Management

The VC management interface provides the modification of the virtual channel and encapsulation type.

PVC Management				
Bridge Port	VC Name	VPI	VCI	Encapsulation Type
DSL-1	PVC_1	1	32	llc
DSL-2	PVC_1	1	32	llc
DSL-3	PVC_1	1	32	llc
DSL-4	PVC_1	1	32	llc
DSL-5	PVC_1	1	32	llc
DSL-6	PVC_1	1	32	llc
DSL-7	PVC_1	1	32	llc
DSL-8	PVC_1	1	32	llc
DSL-9	PVC_1	1	32	llc
DSL-10	PVC_1	1	32	llc
DSL-11	PVC_1	1	32	llc
DSL-12	PVC_1	1	32	llc
DSL-13	PVC_1	1	32	llc
DSL-14	PVC_1	1	32	llc

Modify:

Modify PVC Management	
Bridge ID	DSL-1
VC name	VC-1-U
VPI	<input type="text" value="0"/> (0 ~ 255)
VCI(VCI 3 and 4 is reserved value)	<input type="text" value="88"/>
Encapsulation Type	<input type="text" value="llc"/>
<input type="button" value="Back"/> <input type="button" value="Undo"/> <input type="button" value="Apply"/>	

### 3.2.4 VLAN

#### VLAN

- VLAN Setup
- VLAN Attachment

#### 3.2.4.1 VLAN Setup

This page allows the user to create, modify and delete the information of the VLANs. Click VLAN Setup of VLAN under the Configuration menu to display the page below.

Display all bridge VLAN manager info							
VID	Mode	Flood Enable	Unknown MAC CIR(bps)	Unknown MAC LBS(ms)	Broadcast CIR(bps)	Broadcast LBS(ms)	Port Isolation
1	1-n	Enable	1000000	500	1000000	500	Enable

To create or modify the any specific VLAN, simply click on the “Create” button or select on the desired VLAN and click on the “Modify” button to display the creation or modification page. Then, enter the desired information to the corresponding fields and click “Apply” to save the changes.

Create VLAN

VID

(1 ~ 4093)

Mode

1-n

Unknown CIR(bps)(100~ 1073741824(1Gbps))

1000000

Unknown LBS(bps)(100~ 1073741824(1Gbps))

500

Broadcast CIR(bps)(100~ 1073741824(1Gbps))

1000000

Broadcast LBS(bps)(100~ 1073741824(1Gbps))

500

Isolation

Enable

Back

Undo

Apply

### 3.2.4.2 VLAN Attachment

This page allows the user to attach any specific VLAN ID to the bridge port. Click VLAN Attachment of VLAN under the Configuration menu to display the page below. To modify any specific PVC, simply select the desired VLAN ID and click on the “Modify” button to display the modification page. Choose the desired option from the dropdown list and check the desired checkbox, and then click on the “Apply” to save the settings.

VLAN's port member list

VID

Port Members

1

DSL-01[VC1-U],DSL-02[VC1-U],DSL-03[VC1-U],DSL-04[VC1-U],DSL-05[VC1-U],DSL-06[VC1-U],DSL-07[VC1-U],DSL-08[VC1-U],DSL-09[VC1-U],DSL-10[VC1-U],DSL-11[VC1-U],DSL-12[VC1-U],DSL-13[VC1-U],DSL-14[VC1-U],DSL-15[VC1-U],DSL-16[VC1-U],DSL-17[VC1-U],DSL-18[VC1-U],DSL-19[VC1-U],DSL-20[VC1-U],DSL-21[VC1-U],DSL-22[VC1-U],DSL-23[VC1-U],DSL-24[VC1-U],DSL-25[VC1-U],DSL-26[VC1-U],DSL-27[VC1-U],DSL-28[VC1-U],DSL-29[VC1-U],DSL-30[VC1-U],DSL-31[VC1-U],DSL-32[VC1-U],DSL-33[VC1-U],DSL-34[VC1-U],DSL-35[VC1-U],DSL-36[VC1-U],DSL-37[VC1-U],DSL-38[VC1-U],DSL-39[VC1-U],DSL-40[VC1-U],DSL-41[VC1-U],DSL-42[VC1-U],DSL-43[VC1-U],DSL-44[VC1-U],DSL-45[VC1-U],DSL-46[VC1-U],DSL-47[VC1-U],DSL-48[VC1-U],ETH-01[VC1-U],ETH-02[VC1-U],

Page: 1

Modify

VLAN Flood Mode:		Enable	
Attached Bridge Port:	Attached PVC	Egress	Untagged
		<input type="checkbox"/> Attach All	<input type="checkbox"/> Untag All
DSL-1	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-2	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-3	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-4	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-5	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-6	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-7	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-8	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-9	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-10	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DSL-11	PVC_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.5 QoS

QoS

- Ingress
- Egress

3.2.5.1 Ingress

- Ingress
  - Policer Setup
    - Policer Setup
      - Setup
      - Attachment

3.2.5.1.1 Setup

Get a list of all ingress queue objects						
ID	CIR(bps)	SLBS(msec)	EIR(bps)	DLBS(msec)	COS Rule-1	COS Rule-2
<div>DeleteModifyCreate</div>						

Create:

Create Ingress Queue Setup	
Ingress ID	1
Ingress Type	SLBS
CIR (bps)	100
SLBS(msec)	100
COS Rule-1	0
COS Rule-2	0
<div>BackUndoCreate</div>	

3.2.5.1.2 Attachment

Ingress Priority Attachment List						
Bridge Port ID DSL-1						
ID	CIR(bps)	SLBS(msec)	EIR(bps)	DLBS(msec)	COS Rule-1	COS Rule-2
<div>DetachAttach</div>						

Attach

## Create Policer

Bridge Port ID

DSL-1 ▾

Policer ID

1 ▾

Back

Undo

Create

### 3.2.5.2 Egress

#### • Egress

- Contract Setup
- Scheduler Setup
- PQBlock Setup

#### 3.2.5.2.1 Contract Setup

##### Traffic Contract List

TC ID	TC Type	CIR(bps)	CBS(msec)	EIR(bps)	EBS(msec)	Weight	Weight France
Default	WFQ	N/A	N/A	N/A	N/A	1	0

Members:

Delete

Modify

Create

Create:

## Egress Scheduler Setup

TC ID

1

TC Type

WFQ ▾

Weight

0

Weight Fraction

0

Back

Undo

Create

### 3.2.5.2.2 Scheduler Setup

##### Scheduler Profile List

Scheduler ID	Profile Name	Priority Mode	Priority Queue ID	TC ID	CIR/PCR		EIR/VBR		Weight	Weight France
					CIR/PCR(bps)	CBS(msec)	EIR/SCR(bps)	EBS/MBS(msec)		

Delete

Create

Create:

## Scheduler Profile Setup

Scheduler ID

1

Profile Name

Priority Mode

EFM-CUSTOMER ▾

Traffic Contract id

Default ▾

Back

Undo

Apply

3.2.5.2.3 PQBlock Setup

Create a Priority Queue(PQ) Block

Bridge Port : DSL-1

Create

Create:  
Create PQ Block

Bridge port ID	1
Profile Name	
Priority Mode	ATM-PVC
Channel id	TC id

Back Undo

3.2.6 Protocol Based VLAN

Protocol Based VLAN

- PBV Setup
- PBV Attachment

3.2.6.1 PBV Setup

This page displays all the rules in a PBV group. User will be able to create, modify and delete the PBV groups as well as their rules. Click PBV Setup of Protocol Based VLAN under the Configuration menu to display the page below.

PBV ID : 2

Create PBV Group ID Delete PBV Group ID

PBV Rule List

	Rule ID	EtherType	SVID
<input type="radio"/>	1	0x800	1
<input type="radio"/>	2	0x806	1

Delete Modify Create

First, click “Create PBV Group ID” then it will increase the PBV ID value automatic.

Then, use the dropdown list to select which PBV ID to modify. Next, click the “Create” or “Modify” button to edit the rule for that specific PBV ID as the page below. Finally, select the desired option and click “Apply” to make the changes.

Create Modify PBV

PBV ID

3

EtherType

0x0800

VID

1

Back

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Apply

Field	Description
<b>PBV ID</b>	PBV Group Index. Valid values: 1-15
<b>EtherType</b>	Ethernet type protocol ID. Valid values: IPv4 0x0800   ARP 0x0806   802.1Q 0x8100   IPv6 0x86dd   802.1X 0x888e   802.1ad 0x88a8   OAM 0x8902   Q-in-Q 0x9100   LLT 0xcafe
<b>VID</b>	VLAN ID. Valid values: 1-4093

### 3.2.6.2 PBV Attachment

Bridge Port : DSL-1

Bridge Attachment PBV List

PBV ID	Rule ID	EtherType	VID

Deatch

Attach

This page allows the user to attach certain PBV to any specific bridge ports. Simply select which bridge port to modify first by choosing the option in the dropdown list. Then, click “Attach” button to display the attaching page as below. Again, simply use the dropdown list to select the desired PBV ID to attach and click “Apply” to save the settings.

Create PBV Attachment

Bridge Port

2

PBV ID

2

Back

Undo

Apply

## 3.3 Advanced

### 3.3.1 Protocol Enable

- Protocol Enable
- Protocol Setup
  - Protocol Attachment

#### 3.3.1.1 Protocol Enable Setup

This page allows the user to get a list of all DFC accelerator filter groups as well as enable different protocols. Click Protocol Enable Setup of Protocol Enable under the Advanced menu to display the page below.

Get Protocol enable mode					
	ID	Number of links	Reserved multicast filter	PPPoE Discovery filter	IGMP filter
	1	26	On	Off	On

First, click “Create” button to display the creation page for creating DFC filters group including reserved multicast Mac, PPPoE, ARP, IGMP and DHCP packet as below. Simply use the dropdown list to select the desired options to enable and click “Apply” to create the Filter Group.

Create a DFC accelerator filters group	
<b>ID</b>	2
<b>Reserved multicast filter</b>	On
<b>PPPoE Discovery filter</b>	On
<b>IGMP filter</b>	On
<b>DHCP filter</b>	On

### 3.3.2 Protocol Attachment

Then, attach any specific group ID by clicking on the Protocol Attachment page.

Advanced/Protocol Enable Attachment		
Use this page to attach bridge port to specific DFC accelerator filters group		
Attach bridge port to DFC accelerator filters group		
Protocol ID	Port Members	
1	DSL-01,DSL-02,DSL-03,DSL-04,DSL-05,DSL-06,DSL-07,DSL-08,DSL-09,DSL-10,DSL-11,DSL-12,DSL-13,DSL-14,DSL-15,DSL-16,DSL-17,DSL-18,DSL-19,DSL-20,DSL-21,DSL-22,DSL-23,DSL-24,DSL-25,DSL-26,DSL-27,DSL-28,DSL-29,DSL-30,DSL-31,DSL-32,DSL-33,DSL-34,DSL-35,DSL-36,DSL-37,DSL-38,DSL-39,DSL-40,DSL-41,DSL-42,DSL-43,DSL-44,DSL-45,DSL-46,DSL-47,DSL-48,ETH-01,ETH-02,	<input type="button" value="Modify"/>

Simply check the desired option from the checkbox and click “Apply” to save the settings.



Attach bridge port to DFC accelerator filters group

Protocol ID:

1

Attached Bridge Port:

Attach

☐ Attach All

DSL-1

☒

DSL-2

☒

DSL-3

☒

DSL-4

☒

DSL-5

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DSL-6

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DSL-7

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DSL-8

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DSL-9

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DSL-10

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DSL-20

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DSL-21

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DSL-22

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DSL-23

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DSL-24

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ETH-01

☒

ETH-02

☒

Back

Undo

Apply

### 3.3.3 SNMP

#### SNMP

- SNMP HOST Setup
- SNMP TrapHost Setup

#### 3.3.3.1 SNMP HOST Setup

SNMP HOST List

Host Address

Community

Access

Delete

Create

This page allows the user to create the SNMP HOST List. Click SNMP HOST Setup of SNMP under the Advanced menu to display the page below.

## SNMP HOST List

	Host Address	Community	Access
<input checked="" type="radio"/>	192.168.022.002	Test2	RW
<input type="radio"/>	192.168.011.001	Test1	RO

Delete

Create

To add a new Host Address, simply click the “Create” button to enter the creation page as below. Enter the desired value into the corresponding fields and click “Apply” to save the settings.

## SNMP HOST Create

Host Address   
Community   
Access

Back

Undo

Apply

### 3.3.3.2 SNMP TrapHost Setup

This page allows the user to create the SNMP TrapHost List. Click SNMP TrapHost Setup of SNMP under the Advanced menu to display the page below.

## SNMP TrapHost List

	TrapHost Address	UDP Port	Community	Version
<input checked="" type="radio"/>	192.168.44.4	162	Testing2	V1
<input type="radio"/>	192.168.33.3	162	Testing1	V1

Delete

Create

To add a new TrapHost Address, simply click the “Create” button to enter the creation page as below. Enter the desired value into the corresponding fields and click “Apply” to save the settings.

## SNMP TrapHost Create

Host Address   
UDP Port   
Community   
Access

Back

Undo

Apply

### 3.3.4 IGMP

#### IGMP

- IGMP ACL Setup
- IGMP Group List
- IGMP Information

#### 3.3.4.1 IGMP ACL Setup

This page allows the user to create the IGMP ACL List. Click IGMP ACL Setup of IGMP under the Advanced menu to display the page below.

**IGMP ACL Setup**

ACL Mode

VLAN Transition Mode

Index	Group IP	Vlan ID	Bridge Port	Provider VLAN ID
<input checked="" type="radio"/> 1	225.111.111.111	1	2	1
<input type="radio"/> 2	224.111.111.111	1	1	1

To add a new IGMP ACL, simply click the “Create” button to enter the creation page as below. Enter the desired value into the corresponding fields and click “Apply” to save the settings.

**Create IGMP ACL**

Bridge Port ID

Group IP

Vlan ID

Provider VLAN ID

#### 3.3.4.2 IGMP Group List

##### • IGMP Group List

- Group List
- Group's Sources List

##### 3.3.4.2.1 Group List

This page allows the user to create the IGMP Group List. Click Group List of IGMP Group List under the Advanced menu to display the page below.

**Group List**

Index	Group IP	Vlan ID	Member Add Action	Port Numbers	Port Members	Sources Numbers	Group Join Type
-------	----------	---------	-------------------	--------------	--------------	-----------------	-----------------

Page:

Add Member

Group IP

239.1.1.2

Vlan ID

1

Bridge Port ID

Check to add bridge port member

☐ Add All

DSL-1

☒

DSL-2

☐

DSL-3

☐

DSL-4

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DSL-5

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DSL-6

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DSL-7

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DSL-8

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DSL-9

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DSL-18

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DSL-19

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DSL-20

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DSL-21

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DSL-22

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DSL-23

☐

DSL-24

☐

Back

Undo

Apply

Group List							
Index	Group IP	Vlan ID	Member Add Action	Port Numbers	Port Members	Sources Numbers	Group Join Type
1	239.1.1.2	1	0	0		0	Dynamic

Page: 1

Edit

To add a new Group member, simply click the “Edit” button to enter the creation page as below. Enter the desired value into the corresponding fields and click “Apply” to save the settings.

### 3.3.4.2.2 Group’s Sources List

This page shows all the group’s source list. Click Group Sources List of IGMP Group Setup under the Advanced menu to display the page below.

Group's Soureces List				
Group IP	Vlan ID	Group Mode	Group's Soureces IP	Timer
224.111.111.111	1	EXCLUDE	0.0.0.0	0

Page: 1

### 3.3.4.3 IGMP Information

- IGMP Information
- General Information
- Timer Information

### 3.3.4.3.1 General Information

This page shows all the general information of the IGMP. Click General Information in the IGMP Information of IGMP under the Advanced menu to display the page below.

General Information	
Version	3
Proxy Mode	OFF
Fast Leave	ON
Deny no alert	OFF
Robustness variable	2
Newer version log limit	3
Newer version suppress time	300
Default group limit	10
Maximum IGMP ports	200
Maximum IGMP vlans	4094

Modify

To modify the general information, click the “Modify” button to enter the modification page as below. Simply select the desired option from the dropdown list and click “Apply” to save the settings.

**Modify General Information**

Proxy Mode

OFF

Fast Leave

ON

Robustness variable (2~10)

2

Back

Undo

Apply

### 3.3.4.3.2 Timer Information

This page shows all the Timer information of the IGMP. Click Timer Information in the IGMP Information of IGMP under the Advanced menu to display the page below.

Timer Information	
Query Interval	125.0
Older Host Present	400.0
Maximum response Time	10.0
Group Membership Interval	260.0
Last Member Query Interval	1.0
Unsolicited Report Interval	1.0

Modify

To modify the general information, click the “Modify” button to enter the modification page as below. Simply select the desired option from the dropdown list and click “Apply” to save the settings.

Modify Timer Information

Timer Type	Query Interval
Timeout(Sec)	0
Timeout(100ms)	0

Back

Undo

Apply

### 3.3.5 DLI Setup

This page allows the user to setup the DLI. Click DLI Setup under the advanced menu to display the page below. Simply select the Subport mode and Trusted Ports for the desired Bridge Port, then give it the Circuit ID and Remote ID by entering the desired values into the corresponding fields. Finally, click on “Apply” to save the settings.

DLI Setup

Bridge Port ID	Subopt Mode	Trusted Ports	Circuit ID	Remote ID
1	None	NO		
2	None	NO		
3	None	NO		
4	None	NO		
5	None	NO		
6	None	NO		
7	None	NO		
8	None	NO		
9	None	NO		
10	None	NO		
11	None	NO		
12	None	NO		
13	None	NO		
14	None	NO		
15	None	NO		
16	None	NO		
17	None	NO		
18	None	NO		
19	None	NO		
20	None	NO		
21	None	NO		
22	None	NO		
23	None	NO		
24	None	NO		

Apply


### 3.3.6 SNTP

This page displays the SNTP server IP address and the status. Click the SNTP under the Advanced menu to display the page below.

Get SNTP Server List	
Server Addr	Status
SNTP Enable	
False	
<div>Set TimeZoneDeleteModifyCreate</div>	

#### 3.3.5.1 TimeZone:

System Info	
Description:	VDSL2 IPDSLAM
Name:	
Location:	
Contact:	
Log Threshold:	0
Object-ID:	1.3.6.1.4.1.30544
Up Time(HH:MM:SS):	0:44:51
S/W Version:	1.1.401.53 [ API:GS_CMX_447 FW:JGR_4.106 ] Default Config
DP Version:	WDDI 3.4
System Time: (mon dd hh:mm:ss year)	Sat Jan 01 00 : 44 : 50 2000 <div>Set SNTP</div>
Time Zone:	<div>GMT-0000 GMT GMT-0000 GMT GMT-0000 UTC GMT-0000 WET GMT+0100 CET GMT+0100 FWT GMT+0100 MET GMT+0100 MEWT GMT+0100 SWT GMT+0200 EET GMT+0200 IST GMT+0300 BT GMT+0330 IT GMT+0400 ZP4 GMT+0500 ZP5 GMT+0530 INST GMT+0600 ZP6 GMT+0630 NST GMT+0700 WAST GMT+0700 SSMT GMT+0730 JT GMT+0800 CCT GMT+0800 CAST GMT+0900 ROK GMT+0900 KST GMT+0900 JST GMT+1000 EAST GMT+1000 GST GMT+1200 IDLE GMT+1200 NZST GMT+1200 NZT</div>
DST:	

Get SNTP Server List	
Server Addr	Status
 220.130.158.71	Standby
SNTP Enable	
True	
<div>Set TimeZoneDeleteModifyCreate</div>	

To create a new SNTP server, click the “Create” button to enter the creation page as below. Simply enter the desired values into the fields and click “Apply” to save the settings.

**Create snntp servaddr**

**Server Addr**

.

.

.

Back
Undo
Apply

To enable or disable the SNTP, click the “Modify” button to enter the modification page as below. Simply select the desired option from the dropdown list and click “Apply” to save the settings.

**Modify SNTP Config**

**SNTP Enable**

True
▼

Back
Undo
Apply

### 3.3.7 STP/RSTP

- STP/RSTP
- STP/RSTP Info
  - STP/RSTP Port

#### 3.3.7.1 STP/RSTP Info

This page displays the general information of the STP. Click the STP Info of STP/RSTP under the Advanced menu to display the page below.

Get stp info	
STP Enable	False
Version	RSTP
Local bridge ID	80 00 00 AA BB CC DD E1
Time Since Last Topology Change	1027
Designated Root	80 00 00 AA BB CC DD E1
Root Port ID	N/A
Root path cost	0
Max Aging Time(seconds)	20
Hello Time(seconds)	2
Hold Time(seconds)	3
Forward Delay(seconds)	15
Topology Change Counter	3

Modify

To modify the STP Info, click the “Modify” button to enter the modification page as below. Simply enter the desired information and click “Apply” to save the settings.



### Modify STP Information

STP Enable	False
Version	RSTP
Bridge Priority(2Bytes)	32768
Max Aging Time(seconds)	20
Hello Time(seconds)	2
Forward Delay(seconds)	15

Parameters	Recommended or Default value	Range	Note
Hello Time	2.0	1.0 - 10.0	
Max Aging Time	20.0	6.0 - 40.0	See note 1
Forward Delay	15.0	4.0 - 30.0	

Note 1. Legal range of Max Aging time is  $2 * (\text{Hello Time} + 1.0 \text{ seconds}) \leq \text{Max Aging time} \leq 2 * (\text{Forward Delay} - 1.0 \text{ seconds})$

Note 2. Legal value of Bridge Priority must be multiple of 4096(0x1000)

[Back](#) [Undo](#) [Apply](#)

### 3.3.7.2 STP/RSTP Port

This page displays the general information of the STP. Click the STP Info of STP/RSTP under the Advanced menu to display the page below.

#### Get STP Ports Info

Port ID	Priority	Role	State	Cost	Designated Root ID	Designated Cost	Designated Bridge ID	Designated Port ID	Counter	Version
ETH-1	128	DESIGNATED	FORWARDING	100	80 00 00 AA BB CC DD E1	0	80 00 00 AA BB CC DD E1	0x8061	1	RSTP
ETH-2	128	DESIGNATED	FORWARDING	100	80 00 00 AA BB CC DD E1	0	80 00 00 AA BB CC DD E1	0x8062	1	RSTP

[Modify](#)

To modify the STP Ports Info, click the “Modify” button to enter the modification page as below. Simply enter the desired information and click “Apply” to save the settings.

### Modify STP Port

Port ID	ETH-2
Priority	128
Cost	100

[Back](#) [Undo](#) [Apply](#)

### 3.3.8 802.1x

#### 802.1X


- [Server List](#)
- [Port List](#)

#### 3.3.8.1 Server List

This page displays the list of existing server information. Click the Server List of 802.1X under the Advanced menu to display the page below.

**RADIUS Server List**

Service Mode : Disable ▾

	IP Address	Secret	username	password
	66.55.44.33	"1"	"1"	"1"

Delete
Create

To create a new 802.1X server, click the “Create” button to enter the creation page as below. Simply enter the desired values into the fields and click “Apply” to save the settings.

**Create RADIUS Server**

IP Address

Secret

1

username

1

password

1

Back
Undo
Apply

### 3.3.8.2 Port List

This page displays the list of 802.1X port status. Click the Port List of 802.1X under the Advanced menu to display the page below. To modify the port status, simply select the desired options and click “Apply” to save the settings.

Display the list of 802.1x port status

Port ID	Mode
DSL-1	Auto
DSL-2	Auto
DSL-3	Auto
DSL-4	Auto
DSL-5	Auto
DSL-6	Auto
DSL-7	Auto
DSL-8	Auto
DSL-9	Auto
DSL-10	Auto
DSL-11	Auto
DSL-12	Auto
DSL-13	Auto
DSL-14	Auto
DSL-15	Auto
DSL-16	Auto
DSL-17	Auto
DSL-18	Auto
DSL-19	Auto
DSL-20	Auto
DSL-21	Auto
DSL-22	Auto
DSL-23	Auto
DSL-24	Auto

Apply

## 3.4 Status

Status

Ethernet

Bridge

DSL

### 3.4.1 Ethernet Status

This page allows the user to check the Ethernet Interface Status information. Click Ethernet Status of the Status menu to display the following page. To extract the most current status of the Ethernet Interface, simply click “Refresh” to display the most current status.

Ethernet Interface Status										
Interface	Media	MAC address	IP address	Subnet Mask	Gateway	Speed	Duplex	OP State	Management Svid	Management Cvid
Mgmt	Copper	00 1C CB 50 2D CD	192.168.200.111	255.255.255.0	192.168.200.254	100	full	Up	-	-
Eth1	-	00 1C CB 50 2D CB	192.168.100.111	255.255.255.0	192.168.100.254	-	-	Down	-	-
Eth2	-	00 1C CB 50 2D CC	192.168.1.111	255.255.255.0	192.168.1.254	-	-	Down	-	-

[Refresh](#)

### 3.4.2 Bridge

#### Bridge

- Forwarding DataBase

#### 3.4.2.1 Forwarding Database

This page shows the Forwarding Database. Click Forwarding Database of Bridge under Status menu to display the page below. User will be able to present the FDB by sorting. Simply enter the matching criteria into the blank and click “select” to sort.

FDB(Forwarding Data Base)						
Sort by	All	matching		<a href="#">Search</a>		
MAC	SVID	CVID	Port	Mode	Action	Type
00:1C:CB:50:2D:CB	1	N/A	101	static	accept	single vlan
00:1C:CB:50:2D:CC	1	N/A	102	static	accept	single vlan

Page:

DSL-1 [Flush All Entries Of The Bridge Port](#)

### 3.4.3 DSL Status

#### DSL

- Line
- Channel

#### 3.4.3.1 Line Status

This page allows the user to choose and show the DSL line status of any specific DSL ports. Click Line Status in DSL of the Status menu to display the following page. To show the Line Status of particular bridge port, simply select the corresponding option from the dropdown list to display it.

DSL Line Status								
DSL No.	OP	Admin	DSL Type	SNR Margin(dB)	Attenuation(dB)	Tx PSD(dBm/Hz)	Tx Power(dBm)	Line Rate(Mbps)
1	data	active	ADSL	5.0/ 6.5	1.9/ 1.1	-52.0/-50.0	6.8/ 0.4	24.0/ 1.1
2	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
3	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
4	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
5	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
6	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
7	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
8	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
9	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
10	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
11	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
12	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
13	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
14	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
15	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
16	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
17	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
18	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
19	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
20	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
21	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
22	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
23	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0
24	handshake	active	-	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0	0.0/ 0.0

Refresh

### 3.4.3.2 Channel Status

This page allows the user to choose and show the DSL channel status of any specific DSL ports. Click Channel Status in DSL Status of the Status menu to display the following page. To show the Channel Status of particular bridge port, simply select the corresponding option from the dropdown list to display it.

DSL Channel Status							
DSL No.	Max Interleave Delay(ms)	Interleaving Depth(D)	Current Data Rate(Mbps)	Previous Data Rate(Mbps)	CRC Block Lenth(bytes)	RS Code Symbol Number	RS Redundancy Bytes
1	1/1	1/1	23.34/ 1.08	25.28/ 1.21	45600/2448	32/97	0/0
2	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
3	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
4	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
5	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
6	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
7	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
8	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
9	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
10	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
11	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
12	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
13	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
14	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
15	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
16	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
17	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
18	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
19	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
20	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
21	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
22	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
23	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0
24	0/0	0/0	0.00/ 0.00	0.00/ 0.00	0/0	0/0	0/0

Refresh

## 3.5 Maintenance

### Maintenance

ADSL  
Ethernet Statistics  
Bridge Statistics  
DSL Statistics  
Inq-Policer Statistics  
IGMP Statistics  
PPP Session Statistics  
DHCP Relay Statistics

### 3.5.1 Ethernet Statistics

This page shows all the Ethernet interface statistics. Click ETH IF Statistics under Maintenance menu to present the page below. Simply select the desired ETH interface name from the dropdown list to display the information.

#### Ethernet Interface Statistics

ETH IF NAME

Direction	Received	Transmitted
Packets	2457	1941
Bytes	293661	1359381
Error	0	0
Dropped	0	0
Unicast	-	-
Multicast	0	-
Broadcast	-	-

### 3.5.2 Bridge Statistics

This page shows all the bridge statistics. Click Bridge Statistics under Maintenance menu to present the page below. Simply select the desired Bridge port ID from the dropdown list to display the information.

#### Bridge Port Statistics

Bridge Port ID

PASSED(packets)	All	Broadcast	Multicast				
	0	0	0				
DISCARD (packets)	Vlan Acceptable Filter	Ingress Filter	Bridge Classifier	Unknown MAC	Deny SA	Deny DA	Protocol Error
	0	0	27	0	0	0	0
FORWARDED (packets)	ALL	UniCast	Broadcast	Multicast			
	0	0	0	0			

### 3.5.3 DSL Statistics

## DSL Statistics

- Current Line Report
- 15 Minutes Line Report
- One Day Line Report

### Current Line Report

Current Line Report										
Network Side/Customer Side										
DSL No.	UAS	LOSS	LOFS	LOLS	LPRS	FECS	ESS	SES	Elapsed Time	<input type="checkbox"/> Reset All
1	0/0	0/0	0/0	0/0	0/0	0/0	7/59	10/0	5566/5566	<input type="checkbox"/>
2	5565/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5566/5566	<input type="checkbox"/>
3	5565/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5566/5566	<input type="checkbox"/>
4	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
5	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
6	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
7	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
8	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
9	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
10	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
11	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
12	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
13	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
14	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
15	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
16	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
17	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
18	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
19	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
20	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
21	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
22	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
23	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>
24	5566/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5567/5567	<input type="checkbox"/>

Apply

Refresh

### 15 Minutes Line Report

This page displays the DSL PM Statistics Report of every 15 minutes of the current day. Click 15 Minutes Report of DSL PM Statistics under Maintenance menu to display the following page. Simply select the desired Bridge Port ID as well as the Report ID to display particular 15 Minutes Report of the current day.

### 3.5.4 Inq-Policer Statistics

Inq-Policer Statistics		
Bridge Port ID <span>DSL-1</span> <span>▼</span>		
Ingress Queue ID	Policer Non Conforming(packets)	First Bucket Non Conforming (packets)



### 3.5.5 IGMP Statistics

#### IGMP Statistics

- IGMP Member Statistics
- IGMP Port Statistics
- IGMP VLAN Statistics

#### 3.5.5.1 IGMP Member Statistics

This page shows all the IGMP Member Statistics. Click IGMP Member Statistics of IGMP Statistics under Maintenance menu to present the page below. Simply select the desired Bridge Port ID from the dropdown list to display the information.

**IGMP Member Statistics**

Bridge Port ID

Group IP

VLAN ID

Successful Joins

General Queries

Group Queries

#### 3.5.5.2 IGMP Port Statistics

This page shows all the IGMP Port Statistics. Click IGMP Port Statistics of IGMP Statistics under Maintenance menu to present the page below.

IGMP Port Statistics			
Bridge ID	Failed Joins	Leaves Rx	Invalid Messages
DSL-1	0	0	0
DSL-2	0	0	0
DSL-3	0	0	0
DSL-4	0	0	0
DSL-5	0	0	0
DSL-6	0	0	0
DSL-7	0	0	0
DSL-8	0	0	0
DSL-9	0	0	0
DSL-10	0	0	0
DSL-11	0	0	0
DSL-12	0	0	0
DSL-13	0	0	0
DSL-14	0	0	0
DSL-15	0	0	0
DSL-16	0	0	0
DSL-17	0	0	0
DSL-18	0	0	0
DSL-19	0	0	0
DSL-20	0	0	0
DSL-21	0	0	0
DSL-22	0	0	0
DSL-23	0	0	0
DSL-24	0	0	0

Refresh

#### 3.5.5.3 IGMP VLAN Statistics

This page shows all the IGMP VLAN Statistics. Click VLAN Member Statistics of IGMP Statistics under Maintenance menu to present the page below. Simply select the desired Bridge Port ID from the

dropdown list to display the information.

#### IGMP VLAN Statistics

Bridge Port ID DSL-1

VALN ID	Active Groups	Joins to NW	Successful Joins	Failed Usr Joins	Total Usr Joins	Leaves to NW	Leaves From Usr	Gen Queries Usr	Gen Queries NW	Grp Queries Usr	Grp Queries NW	Invalid Messages
1	0	0	0	0	0	0	0	0	0	0	0	0

Refresh

### 3.5.6 PPP Session Statistics

This page displays the PPP session statistics.

#### PPP Session Statistics

PPP session id	Port ID	broadband remote access server(BRAS)	VID	Agent Count	Forwarded Packets
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Refresh

### 3.5.7 DHCP Relay Statistics

This page displays the DHCP relay statistics. Click DHCP Relay Statistics under Maintenance menu to display the following page.

#### Get dhcp relay statistics

Items Name	Forwarded(Packets)
Bogus agent drop	0
Bogus giaddr drop	0
Client packets relayed	0
Server packet errors	0
Server packets relayed	0
Client packet errors	0
Add agent options	0
Drop agent mismatches	0
Corrupt agent options	0
Missing agent option	0
Bad circuit id	0
Missing circuit id	0
Bad remote id	0
Missing remote id	0

Refresh